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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,132	06/26/2003	Andrew J. Boeckle	0133.00	6677
21968	7590	01/03/2008		
NEKTAR THERAPEUTICS 201 INDUSTRIAL ROAD SAN CARLOS, CA 94070			EXAMINER HUYNH, LOUIS K	
			ART UNIT 3721	PAPER NUMBER
			MAIL DATE 01/03/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/609,132

Applicant(s)

BOECKLE ET AL.

Examiner

Louis K. Huynh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-34, 36-41 and 59-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-34, 36-41 and 59-68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/31/2007 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 6-12, 14, 19-21, 31-34, 36-39, 59, 66 and 67 are rejected under 35 U.S.C. 102(b) as being anticipated by Sun'302. et al. (US 5,753,302).

- With respect to claims 1-3, 6, 7 and 66, Sun'302 discloses an acoustic dispenser (1710) that meets all of applicant's claimed subject matter; in particular, the acoustic dispenser of Sun'302 comprises: a hopper (1780) adapted to contain pharmaceutical powder, and a vibrating membrane (1760) that vibrates at a selected frequency, preferably at resonant frequency (col. 8, lines 41-54) and disturbs the air within the hopper (1780) to dispense the powder through an outlet of the hopper (where a receiving substrate 1790 is located according to FIG. 1).

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Regarding the functional language of the supply of powder being spaced from the vibratable member when the powder is present in the hopper and the vibratable member is not vibrating and whereby the chamber may be filled by powder flowing through the outlet and into the chamber, the acoustic dispenser of Sun'302 is fully capable of holding the pharmaceutical powder on a separation membrane (mesh 1770) that is spaced from the vibratable membrane (1760) when the acoustic dispenser is turned up side down (from the illustration of FIG. 1), whereby pharmaceutical powder may flow through the separation membrane (1770) into the outlet of the hopper with or without the vibratable membrane being vibrated.

- With respect to claims 31-34, 36 and 38, Sun'302 teaches a method for filling a chamber that meets all of applicant's claimed subject matter; in particular, the method of Sun'666 comprises the steps of: providing a pharmaceutical powder in a hopper (1780), disturbing air in the hopper by vibrating a membrane (1760) in contact with the powder to dispense the powder through an outlet of the hopper (where a receiving substrate 1790 is located according to FIG. 1) and into a chamber such as a capsule (col. 15, lines 36-40). Note that prior to providing the pharmaceutical powder into the hopper (1780), the vibrating membrane is not vibrating and the pharmaceutical powder is provided separately and is not in contact with the vibrating membrane (1760); thus the step of providing a separation between the pharmaceutical powder and the vibrating membrane.

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- With respect to claims 8 and 37, the membrane (1760) of the acoustic dispenser (1710) of Sun'302 is operated at audible range having known frequency of about 20Hz to about 200kHz, which includes the range of about 10Hz to about 1kHz as claimed.
- With respect to claims 9-11, the membrane (1760) in the acoustic dispenser of Sun'302 is the powder vibrating member that vibrates in contact with the powder, and the membrane vibrates in a direction generally parallel to a longitudinal axis of the speaker (1720).
- With respect to claims 12 and 14, the acoustic dispenser of Sun'302 is adapted to dispense pharmaceutical powder into capsules (col. 15, lines 36-40).
- With respect to claims 19-21, the hopper (1780) is an enclosure having side walls and a cover, wherein the cover comprises the membrane (1760) (FIG. 1).
- With respect to claim 66, the vibratable membrane is also considered to be the powder vibrating member that vibrates while in contact with the pharmaceutical powder.
- With respect to claim 67, the vibratable membrane (1760) is a part of a speaker (1720) which has a longitudinal axis through the center of the speaker, wherein the vibratable membrane (1760) is vibrating along the longitudinal axis through the center of the speaker.

4. Claims 1-3, 6, 8, 9, 11-16, 22-24, 28-34, 36, 37, 39, 40 and 60-65 are rejected under 35 U.S.C. 102(b) as being anticipated by Sun'666 (US 6,168,666).

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- With respect to claims 1-3, 6, 8, 22-24, Sun'666 discloses an acoustic dispenser (FIG. 1) that meets all of applicant's claimed subject matter; in particular, the acoustic dispenser of Sun'666 comprises: a hopper (BDP) adapted to contain pharmaceutical powder (BEAD), and a vibrating membrane (CONE) spaced from the pharmaceutical powder and is adapted to vibrate at a selected frequency, preferably between 10-400 Hz (col. 15, line 62 – col. 19, line 6) to disturb the air within the hopper (BDP) in order to dispense the powder through the outlet of the hopper (BDP) and into chambers (BCZ).
- With respect to claims 9 and 11, the vibrating membrane (CONE) in the acoustic dispenser of Sun'666 is the powder vibrating member that vibrates in a direction generally parallel to a longitudinal axis of the speaker (S).
- With respect to claims 31-34, 36 and 37, Sun'666 teaches a method for filling a chamber that meets all of applicant's claimed subject matter; in particular, the method of Sun'666 comprises the steps of: providing a pharmaceutical powder (BEAD) in a hopper (BDP), providing a mesh (MESH) that separates the pharmaceutical powder (BEAD) and a vibrating membrane (CONE), disturbing air in the hopper by vibrating the vibrating membrane (CONE), and passing the powder through an outlet of the hopper into a chamber (BCZ); wherein the membrane (CONE) is preferably vibrated at a frequency of about 10-400 Hz to fluidize the powder.
- With respect to claims 12-16, 28-30 and 40, Sun'666 discloses a powder transport chuck (BTC) that includes chambers (BCZ) for holding substrate such as capsules

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(col. 10, line 62 – col. 11, line 8), and/or for receiving the powder and transporting the powder to discharge the powder in creating pharmaceutical compositions (col. 1, lines 5-15).

- With respect to claim 39, the chambers to be filled in the method of Sun'666 include capsules which are normally sealed after being filled; hence, the step of sealing the chamber(s).
- With respect to claims 60-62, Sun'666 discloses an acoustic dispenser (FIG. 1) that meets all of applicant's claimed subject matter; in particular, the acoustic dispenser of Sun'666 comprises: a hopper (BDP) adapted to contain pharmaceutical powder (BEAD), and a vibrating membrane (CONE) spaced from the pharmaceutical powder and is adapted to vibrate at a selected frequency, preferably between 10-400 Hz (col. 15, line 62 – col. 19, line 6) to disturb the air within the hopper (BDP) in order to dispense the powder through the outlet of the hopper (BDP) and into movable chambers (BCZ) located on a powder transport chuck (BTC); wherein the chambers are movable between a powder collecting position and a powder ejecting position (col. 14, lines 55-62).
- With respect to claim 63, the vibrating membrane (CONE) in the acoustic dispenser of Sun'666 is the powder vibrating member.
- With respect to claim 64, the powder transport chuck (BTC) that includes chambers (BCZ) for receiving the powder and transporting the powder to discharge the powder in a controlled distribution as a metering means in creating pharmaceutical compositions (col. 1, lines 5-15).

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5. Claims 22 and 25-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Parks et al. (US 5,826,633).

- With respect to claims 22 and 25-30, Parks discloses an apparatus for filling a receptacle (12) including a hopper (18) adapted to contain pharmaceutical powder (28) and having an outlet (46), a first vibratable member (34) capable of disturbing air within the hopper (18) by vibrating a second vibratable member (screen member 30) in a longitudinal direction of the member (30) (col. 4, lines 34-36) that contact the powder (28), a metering chamber (56) disposed on a transfer wheel (16) that rotates between a receiving position and an ejecting position (FIGS 5-8), and a blister receptacle (12) for receiving the metered powder. Note that the first vibratable member (34) is not in contact with the powder (28) (FIG. 4) whether or not the vibratable member (34) is vibrating, and the first vibratable member (34) is capable of fluidizing the powder (28) by transmitting the vibration to the second vibratable member (screen member 30) when the first vibratable member (34) is vibrating (col. 10, lines 23-43).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 17, 18, 41 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun'666 in view of Sun'099 et al. (US 5,858,099).

- With respect to claims 17, 18, 41 and 65, the acoustic dispenser and method of Sun'666 teaches the chambers (BCZ) in the powder transport chuck (BTC) which meets all of applicant's claimed subject matter but lacks the specific teaching of the chamber(s) being in a rotating member and the step of rotating the chamber(s) from a powder receiving position to a powder ejecting position. However, Sun'099 discloses an acoustic dispenser and a method of filling chamber that utilize a rotatable powder transport chuck which receives powder from the acoustic dispenser in a receiving position, rotates to an ejecting position to deposit the powder into edible powder receptacles (FIG. 15). Therefore; it would have been obvious to a skilled person in the art, at the time of the invention, to have provided the acoustic dispenser of Sun'666 with a rotatable powder transport chuck, as taught by Sun'099, for transporting the pharmaceutical powder from the acoustic dispenser to an ejecting position in order to discharge the powder into edible receptacles.

8. Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sun'302.

- The acoustics dispenser of Sun'302 meets all of applicant's claimed subject matter but lack the specific teaching of the powder vibrating member vibrating at a frequency of about 1000 Hz to about 180,000 Hz. The powder vibrating member is the vibratable membrane that can be vibrated in the known audible range of

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about 20 Hz to about 20,000 Hz; it would have been obvious to a skilled person in the art to have operate the acoustic dispenser of Sun'302 such that the vibratable membrane vibrates at a frequency of 10,000 Hz, for example, which is well within the claimed range of frequency.

Response to Arguments

9. Applicant's arguments with respect to claims 1 and 22 have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant's arguments filed 10/31/2007 with respect to claim 31 have been fully considered but they are not persuasive.

- Applicant contends that the reference to Sun'302 does not provide a separation between the powder and the vibratable membrane. This is not found persuasive because prior to providing the pharmaceutical powder into the hopper (1780), the vibrating membrane is not vibrating and the pharmaceutical powder is provided separately and is not in contact with the vibrating membrane (1760); therefore, the method of Sun'302 does include the step of providing a separation between the pharmaceutical powder and the vibrating membrane.
- Applicant contends that the reference to Sun'666 does not provide a separation between the powder and the vibratable membrane. This is not found persuasive because the reference to Sun'666 clearly teaches that the vibrating membrane (CONE) vibrates to disturb the air in the hopper (BDP) in order to fluidize the powder (BEAD) without contacting the powder. See FIG. 1.

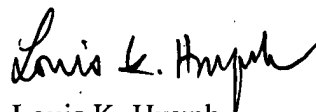
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Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis K. Huynh whose telephone number is 571-272-4462. The examiner can normally be reached on M-F from 8:00AM to 3:00PM.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I. Rada can be reached on 571-272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Louis K. Huynh
Primary Examiner
Art Unit 3721

December 31, 2007